

IN THE CLAIMS

1. (Original) A paper sheet treating device comprising:
 - a sheet table;
 - an aftertreatment mechanism including one of a punching device for punching a paper sheet on the sheet table and a stapler for stapling the sheet on the sheet table, wherein the aftertreatment mechanism performs an aftertreatment of one of a punching operation and a stapling operation;
 - a closing type fence positioned at a leading end on a downstream side of the sheet table; and
 - a pair of feed rollers disposed upstream of the closing type fence and including an upper roller positioned on an obverse side of the sheet and a lower roller positioned on a reverse side of the sheet,
 - wherein the feed rollers position the sheet on the sheet table by pushing the sheet onto the closing type fence, and the closing type fence is opened after the aftertreatment to discharge the sheet.
2. (Withdrawn) The paper sheet treating device according to claim 1, wherein the feed rollers are mounted on a spindle through a torque limiting mechanism, and when a leading end of the sheet on the sheet table abuts against the closing type fence, a rotation of the feed rollers is stopped by a torque limiting action while applying a forward force to the sheet, and the sheet is held while being pushed onto the closing type fence.
3. (Withdrawn) The paper sheet treating device according to claim 2, wherein the torque limiting mechanism includes sliding clutches.

4. (Withdrawn) The paper sheet treating device according to claim 1, wherein the feed rollers include two rollers arranged at a spacing in a direction perpendicular to a sheet feeding direction.

5. (Withdrawn) The paper sheet treating device according to claim 1, further comprising: a pair of positioning plates disposed on right and left sides of the sheet table and capable of widening/narrowing their mutual spacing, wherein the pair of positioning plates interpose the sheet on the sheet table from the right and left sides so as to position the sheet transversely.

6. (Withdrawn) The paper sheet treating device according to claim 5, further comprising: a sheet feed roller opening control mechanism, wherein the sheet feed roller opening control mechanism releases a pressure on the sheet, when a spacing of the positioning plates narrows, and presses the sheet after an end of the narrowing of the positioning plates.

7. (Withdrawn) The paper sheet treating device according to claim 1, wherein actions of the sheet feed mechanism, the aftertreatment mechanism, the closing type fence and the feed rollers are overlapped in a time scale.

8. (Withdrawn) The paper sheet treating device according to claim 1, further comprising: a rotary flap disposed on an upstream end of the sheet table, wherein the rotary flap rotates to cover an upper face of an trailing end of the sheet when the sheet is fed onto the sheet table.

9. (Withdrawn) The paper sheet treating device according to claim 1, wherein the punching device includes: a die; a punch that moves upward and downward with respect to the die fixed, for punching the sheet; a punch lifting mechanism; and a spring for biasing the

punches toward the die, wherein a punch driving force by the punch lifting mechanism and a spring force of the spring coact to punch the sheet.

10. (Withdrawn) The paper sheet treating device according to claim 9, wherein the punch lifting mechanism includes: a motor; a crankshaft driven by the motor; and a link for connecting a crank pin of the crankshaft and the punches.

11. (Withdrawn) The paper sheet treating device according to claim 9, wherein the punching device further includes: a click stop mechanism for holding the punches at standby positions.

12. (Withdrawn) The paper sheet treating according to claim 11, wherein the click stop mechanism includes: a disc cam having a groove formed in its outer circumference and mounted on the crankshaft; and one of a roller and a pawl for making elastic contact with the groove.

13. (Currently Amended) The paper sheet treating device according to claim 1, further comprising:

a sheet positioning mechanism for correcting a ~~transverse~~ position of the sheet in a transverse direction which is perpendicular to a feeding direction of the sheet,

wherein the punching device includes:

a punching device body;

a punching unit removably mounted on the punching device body and having a punch and a die assembled in the punching unit;

a positional deviation information storage unit disposed in the punching unit for storing a positional deviation information on the punch and the die in a the transverse ~~directions~~ direction; and

a read unit disposed in the punching device body for reading the positional deviation information,

wherein the sheet positioning mechanism corrects the transverse position of the sheet in accordance with the positional deviation information read.

14. (Original) The paper sheet treating device according to claim 13, wherein the sheet positioning mechanism includes:

a reference positioning unit; and

a movable positioning unit for pushing the sheet toward the reference positioning unit,

wherein the position of the reference positioning unit is corrected according to the positional deviation information read.

15. (Original) The paper sheet treating device according to claim 13, wherein the positional deviation information storage unit includes one or more dip switches.

16. (Original) The paper sheet treating device according to claim 13, wherein the positional deviation information storage unit includes a nonvolatile memory.

17. (New) The paper sheet treating device according to claim 14, wherein the movable positioning unit is spaced from the reference positioning unit by a first distance such that the sheet positioning mechanism corrects the transverse position of the sheet according to the positional deviation information read by changing the spacing between the movable positioning unit and the reference positioning unit from the first distance to a second distance.

18. (New) The paper sheet treating device according to claim 17, wherein the sheet positioning mechanism further comprises a jogging mechanism such that the jogging mechanism drives the reference positioning unit toward the movable positioning unit to correct the position of the reference positioning unit according to the positional deviation information read.

19. (New) A paper sheet treating device comprising:

a sheet table;

an aftertreatment mechanism including one of a punching device for punching a paper sheet on the sheet table and a stapler for stapling the sheet on the sheet table, wherein the aftertreatment mechanism performs an aftertreatment of one of a punching operation and a stapling operation, the punching device including

a punching device body,

a punching unit removably mounted on the punching device body and having a punch and a die assembled in the punching unit,

a positional deviation information storage unit disposed in the punching unit for storing a positional deviation information on the punch and the die in a transverse direction which is perpendicular to a feeding direction of the sheet, and

a read unit disposed in the punching device body for reading the positional deviation information;

a sheet positioning mechanism for correcting a transverse position of the sheet,

a closing type fence positioned at a leading end on a downstream side of the sheet table, the closing type fence extending from a first location proximate the punching device to a second location proximate the punching device, the first and second locations defining a longitudinal axis, the closing type fence being movable relative to the sheet table along the longitudinal axis; and

a pair of feed rollers disposed upstream of the closing type fence and including an upper roller positioned on an obverse side of the sheet and a lower roller positioned on a reverse side of the sheet,

wherein the feed rollers position the sheet on the sheet table by pushing the sheet onto the closing type fence, the sheet positioning mechanism corrects the transverse position of the sheet in accordance with the positional deviation information read, and the closing type fence is opened after the aftertreatment to discharge the sheet.

20. (New) The paper sheet treating device according to claim 19, wherein the sheet positioning mechanism includes:

a reference positioning unit; and

a movable positioning unit for pushing the sheet toward the reference positioning unit,

wherein the position of the reference positioning unit is corrected according to the positional deviation information read.

21. (New) The paper sheet treating device according to claim 20, wherein the positional deviation information storage unit includes one or more dip switches.

22. (New) The paper sheet treating device according to claim 20, wherein the positional deviation information storage unit includes a nonvolatile memory.

23. (New) A sheet treating device for performing a treatment on a sheet of paper comprising:

- a frame;

- an upper feed roller and a lower feed roller disposed in the frame such that the upper and lower feed rollers cooperate to transfer the sheet in a first direction;

- a punching unit having a leading end, a trailing end, and an exterior surface disposed between the leading end and the trailing end, which comprises

- a punch disposed between the leading end and the trailing end,

- a die plate offset from the punch,

- a closing type fence disposed adjacent to the punch,

- a flange panel located at the trailing end that comprises

- a front face, and

- a reverse face disposed between the front face and the punch;

and

- a positional deviation storage unit attached to the exterior surface such that the positional deviation storage unit stores positional deviation information concerning the distance between the reverse face of the flange panel and the punch; and

- a sheet table disposed adjacent to the upper and lower feed rollers;

- a sheet positioning mechanism proximate the sheet table, which comprises

- a reference positioning unit located at a first position,

- a movable positioning unit located at a second position, and

- a jogging mechanism connected to the reference positioning unit such that the jogging mechanism moves the reference positioning unit,

- the sheet positioning mechanism being operable between a first configuration which comprises the reference positioning unit being located at the first position, and a second configuration which comprises the reference positioning unit being located at a third position spaced from the first and second positions; and

a control unit, which comprises

a read unit in communication with the positional deviation storage unit such that the read unit receives positional deviation information from the positional deviation storage unit and produces positional deviation data based on the positional deviation information; and

a positional deviation elimination control unit in communication with the read unit and the jogging mechanism such that the positional deviation elimination control unit obtains the positional deviation data and based on the positional deviation data operates the jogging mechanism to adjust the sheet positioning mechanism from the first configuration to the second configuration, the third position of the reference positioning unit being set by the control unit to adjust the reference positioning unit with respect to the punch so as to correct the position of the sheet perpendicular to the first direction and prevent positional errors of punched holes by positioning the sheet for treatment in a precise location.

24. (New) The sheet treating device of claim 23, wherein the front face includes a handle, the rear face includes a plurality of positioning bosses such that the positioning bosses engage with the frame to position the punching unit with respect to the sheet table.

25. (New) The sheet treating device of claim 24, wherein the positional deviation storage unit comprises a plurality of dip switches.

26. (New) The sheet treating device of claim 24, wherein the positional deviation storage unit comprises a nonvolatile memory.

27. (New) The sheet treating device of claim 24, wherein the jogging mechanism comprises a feed screw mechanism that is fixed at an ordinary running time.